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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/765,879

01/29/2004

Shunsuke Matsubara

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21171

7590

04/17/2006

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EXAMINER

IP, SHIK LUEN PAUL

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/765,879

Applicant(s)

MATSUBARA ET AL.

Examiner

Paul Ip

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior Art Figures 2 or 3 in view of Yoshida et al (5,990,570 or 6,163,082 or 2001/0054847). Prior Art Figures 2 and 3 show the sensor 3 and an inverter unit 1 includes a sensor circuit 2 except the 0V line 6 is not connected to the sensor circuit. However, the patents or publication to Yoshida et al show in figure 6 the power cable connected to the ground of the short sensor 110b. Prima facie case is made that when the sensor and the sensor circuit require proper grounding connections, one of ordinary skill in the art would look into the ground monitoring systems and different techniques for proper solutions. Since Yoshida et al deal with the same problems of the Prior Art Figures 2 and 3, and Yoshida et al provide the solution to solve the grounding problem of the cables for controlling motors & transformers. It would have been obvious to one of ordinary skill in the art to provide Prior Art Figures 2 and 3 with the grounding connection as taught or suggested by Yoshida et al.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-281765 in view of JP 2001-286152, or JP 2000-195685, or JP 10-135681. JP 2002-281765 discloses a grounding method using a shielded cable in which one end of the cable is connected to ground pole. JP 2001-286152 discloses grounding of a grounding terminal in a housing. JP 2000-195685 discloses earth connecting of an earth connecting portion 120c and a base 122. JP 10-135681 discloses connection of an outer conductor of a cable and a grounding terminal of a frame. Claims 1-4 are not

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patentable over these references because these references show different ways of grounding terminals, such as Figures 1-3 of the drawings of this application, to produce the same grounding result. In view of Figures 1-3 of the drawings of this application, one of ordinary skill in the art would realize that the ways of connecting the ground wires of the sensor circuits are functional equivalents/same, which produce the same result. Therefore, it would have been obvious to one of ordinary skill in the art to connect the ground wire of JP 2002-281765 with the way of grounding the wire as taught or suggested by JP 2001-286152 or JP 2000-195685 or JP 10-135681.

Also, see the Notice of Reasons for Rejection for corresponding Japanese Application No. 2003-033618 dated January 19, 2005 for the reason of rejection.

### ***Response to Amendment***

7. Applicant's arguments filed on 8/17/2005 have been fully considered but they are not persuasive.

Prior Art Figures 2 and 3 show every elements of the invention except the 0V line 6 is not connected to the cable 5. However, one of ordinary skill in the art should notice that Figures 1-3 are electrically equivalents to each other. Applicant should realize that grounding the 0V line 6 at the ground 8 is the same as grounding the 0V line 6 to cable 5 at the grounding 7. Yoshida et al show the way of grounding the wire in figure 6. Applicant should realize that with or without Yoshida et al, Figures 2 and 3 are electrically equivalents to Figure 1 of the invention. Yoshida et al is added to emphasize the prima facie case of obviousness of the ground wire equivalents.

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Furthermore, the Notice of Reasons for Rejection for corresponding Japanese Application No. 2003-033618 dated January 19, 2005, is added into the rejection in the format as under 35 U.S.C. 103 according to the U.S. standard.

Applicant should realize that Figures 1-3 of the drawings of this application are electrically equivalents to each other. It shows different ways of grounding the 0V wire for the same grounding result at ground 7 or 8. These figures do not show any patentable distinct connections for the same function. The different ways of grounding the 0V wire do not carry any patentable value for the same grounding function purpose. See the references cited below. These references show the way of the grounding as in the claims.

Claims 1-6 have been carefully considered. Prior art figures 2 and 3 show everything except the grounding connection of the cable. A careful consideration is given that the grounding connection of the cable is not patentable distinct from the prior art grounding connection. One of ordinary skill in the art would realize that these grounding connections are electrically the same. Furthermore, the references cited in the form 892 are the same grounding connection as this application. Claims 1-6 do not carry any patent value.

#### ***Citation of Pertinent References***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The patents or publication to Yoshida et al (6,294,845 or 6,534,883), Means (3,829,845), and Uhl (2002/0033686) disclose grounding connection relevant to this application.

The patents or publications to Lovin (5,427,645), Atalar (4,706,048), Laakmann (5,008,894), Otsuka et al (2003/0143964), Gadamus et al (2002/0190042), Dempsey et al (4,031,437), Toy (5,952,741), Sugiyama et al (5,993,680), Niinuma (2005/0141208), Watanabe et al (2002/0171433), Koshiishi et al (2006/0037701), Koshiishi et al (2006/0037703), Watanabe et al (6,768,315), Kobayashi (2003/0080755), Wilson (5,057,965), and Fukui (5,318,027) disclose systems comprising a grounding connection relevant to this application.

#### ***Communication Information***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Ip whose telephone number is (571)-272-1941. The examiner can normally be reached on Monday to Friday from 6:30 am to 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin, can be reached on (571)-272-2107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>.

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Should you have questions on access to the Private PAIR system, contact the  
Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Ip  
Primary Examiner  
Art Unit 2837

3/31/2006